

UNIVERSITY OF LOUISIANA AT LAFAYETTE

CHEM. 115 Fall-2008
Introduction to General Chemistry Laboratories
(ID # 206482, Sect. 003)
<http://www.uclouisiana.edu/~ssm3124>

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Laboratory: 11:00 am – 1:50 pm TR, in 123 MY

Office Hours: 10:00 – 10:50 am MW & 9:20 – 10:20 am TR, and by appointment.

Required Materials:

1. Laboratory Manual for Chem. 115, Experiments in General Chemistry, Revised version of 2008.
2. Safety goggles, OSHA approved. (**ANSI Z87.1** is imprinted on goggles; may be purchased from stockroom)
3. A scientific calculator. You will also need its instruction manual for certain operations.
4. Paper towels and soap (no bar soap)

Prerequisite:

Successful completion of Chem 107 and/or Chem 108 is pre-requisite to be enrolled in Chem 115.

Laboratory:

Students must attend all laboratory sessions and pre-lab lectures. No student will be allowed to work in lab if she/he has not attended the pre-lab lecture or is late for pre-lab (for safety reasons). The pre-lab assignment is due as you enter the pre-lab lecture. **THERE ARE NO MAKE-UP LABS.** In the event a student must miss a lab session for a verifiable university recognized reason, arrangements must be discussed individually with me within five days. **STUDENTS MUST WEAR SAFETY GOGGLES AT ALL TIMES IN LABS.** Failure to observe this rule will result in immediate expulsion. We recommend that you do not wear contact lenses in labs, wear optically corrective eyeglasses under safety goggles. Do not wear open sandals or thongs in the lab, no bare feet. Dress appropriately; keep a maximum amount of skin covered. **For each lab session you must bring: COMPLETED pre-lab assignment. Reports must be turned in to be graded for each lab and are due the next lab period.** All rules as outlined in the Chemistry Laboratory Agreement will be enforced. Anyone who drops the course without checking out of the lab automatically receives a W.

Preparing for Lab:

Bring the laboratory manual, the assignment and required materials and read them. Study the related lab notes (photos of the equipment, special procedures, etc. Also you may need to review any material that is related to your experiment from Chem 107 and/or Chem 108). Complete the pre-lab assignment to turn in when you arrive at the pre-lab briefing. During the briefing, pay special attention to the safety issues and instructions for the day. Perform the experiment. Make accurate measurements and record the data appropriately. Turn in your work to your instructor before leaving the Lab.

Format for the notebook:

1. Each page must be numbered (upper right hand corner)
2. The first page of the notebook should have the following information:
 - a) Name
 - b) Course & Section number
 - c) Instructor name
 - d) Home address & phone number
3. The next two pages of the notebook must be reserved for the **table of contents**.
4. After the table of contents, the entries for the laboratory assignments should be given.

You should write on the front of each page of the notebook, and all entries should be made in ink. If there are any calculations that you want to include in the notebook, please write it on the back of that page in pencil.

Format for each experiment entry:

1. Title and date of experiment should go on the first page.
2. Objective – short statement about the importance of the experiment.
3. Data and observation – this should contain the data and observations obtained from the experiment and should be filled in as one is doing the experiment not afterwards.
4. Results and conclusion – the results of the experiment followed by a short conclusion.

Academic Misconduct & Cheating:

Cheating, dishonesty, plagiarism or deception in fulfilling requirements will not be tolerated. Penalties include failing the course and referral to university judiciaries. The penalty of cheating on lab reports is a grade of zero on that experiment. That score will not be dropped when determining the final grade. Also, students **MUST** be sure that their **Cell phones are OFF** before entering the lab.

Grading:

Grading for the course will be based on the individual performance of each student in the labs, pre-lab assignments, reports, quizzes and notebook. A total of **FIVE QUIZES** will be given during the semester. Quizzes method include multiple choice, “fill in the blanks”, short essay style, calculations and chemical equation analysis, interpretation: how, why and what questions. There will be **NO MAKE-UP QUIZES**. If you miss more than three excused labs and/or unexcused lab, then your grade may be lowered by one letter grade. If you miss more than five labs, then you may need to drop the course.

	<u>% of course grade</u>	<u>Grade Scale</u>
Pre-labs	10%	A: 100-90%
Reports (10 pts each)	60%	B: 89-80%
Note book	15%	C: 79-70%
Quizzes	15%	D: 69-60%
		F: < 60%

Drops:

The last day to drop a class is **Thursday, October 16, 2008 with a grade of “W”.**

Emergency Evacuation Procedures:

A map of this floor is posted near the elevator making the evacuation route and the **Designated Rescue Area**. This is an area where emergency service will personnel will go first to look for individuals who need assistance in existing the building. Students who may need assistance should identify themselves to the teaching faculty.

LABORATORY SCHEDULE

August 26	Safety, Introduction & balance
August 28	<u>Check-in</u> & Inorganic chemical reactions
September 2	NO LAB (Labor day)
September 4	Measurements
September 9	Reactions of copper & use of common lab techniques
September 11	Solubility of potassium nitrate
September 16	Stoichiometry-Hydrates
September 18	Synthesis of alum
September 23	Molar mass of active metal
September 25	Freezing point depression
September 30	Paper chromatography
October 2	NO LAB (Fall holiday)
October 7	Kinetics I
October 9	Kinetics II
October 14	Volumetric analysis
October 16	Indirect analysis of Potassium
October 21	Spectrophotometric analysis
October 23	Synthesis of Aspirin
October 28	Heat, temp. & calorimetry
October 30	Thermochemistry
November 4	pH Measurements and pH titration
November 6	Buffers
November 11	Back titration
November 13	Redox reactions
November 18	Solubility product constant
November 20	Molar mass of a gas & <u>Check-out</u>